

"The Northwest's Largest Ham Convention"



SEA-PAC 05

June 17 - 19, 2005

ARRL NORTHWESTERN DIVISION CONVENTION

Seaside Convention Center, Seaside Oregon

Commercial Exhibits • Giant Flea Market • Banquet/Entertainment
Seminars

At A Beautiful Northwest Ocean Beach

◀ Much More ▶

Exhibitors:
Al Berg, W7SIC
503.816.7098

SEA-PAC Convention

www.seapac.org

PO Box 25466

Portland, OR 97298-0466

Registration:
Will Sheffield, N7THL
503.642.7314

Fill out this form - Leave it at the Registration Desk
to receive information on SEA-PAC 2005.

I want to be part of SEA-PAC 2005. Please Send Me:

- ☐ Registration Form
- ☐ Flea Market Information
- ☐ Commercial Exhibit Rates and Contract
- ☐ I would like to present a Seminar:
Topic _____
- ☐ I would like to help

Name _____ Call _____

Address _____

City _____ State _____ Zip _____

Telephone _____

Email Address _____



SEA-PAC

22nd Year



ARRL Northwestern Division Convention

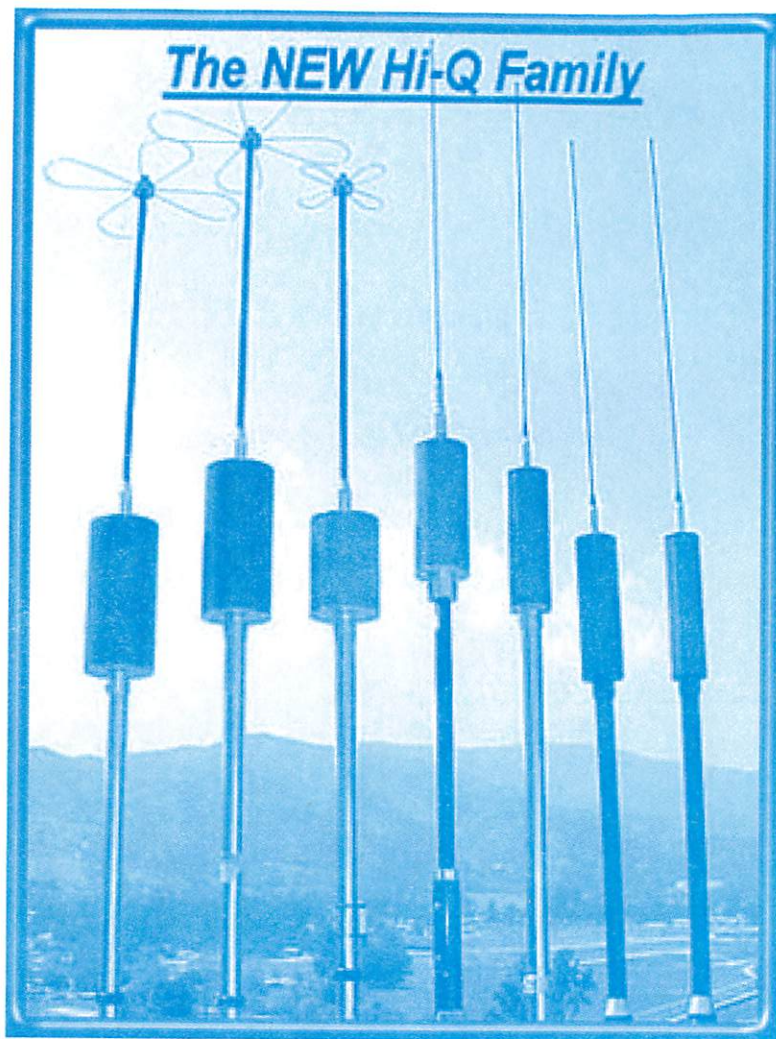


Seaside Convention Center

June 18 - 20, 2004

Presented by
Oregon Tualatin
Valley Amateur
Radio Club





**Visit the H-Q Antennas Booth
at SEA-PAC**

SEA-PAC Committees

**Thanks To Volunteers Who Make
SEA-PAC '04 A Success!**

[Due to publication deadlines, we apologize for omissions and changes]

EXECUTIVE COMMITTEE

Al Berg, W7SIC
Will Sheffield, N7THL
JD Fort, K7JDF

TREASURER
Linda Sutton, KC7YTD

**ADVERTISING &
EXHIBITORS**
Al Berg, W7SIC

**EXHIBITORS
HOSPITALITY**
Betty Mickley, N7REX
Frances Adams, KB8PRL
Scott Adams, KB8PRS
Ann Boyd
Joe Boyd, N7VZS
Charley Mickley
Molly Mickley
Brad Wells, KD7RTD
Dinah Wells

EXHIBIT SET-UP
Neil McKie, WA6KLA
Cindy Kenyon, KC7UJD
Jerry Kenyon, KB7LNR
Kevin Novak, K7KCN
Carolyn Howells, WA7SVV
Doug Leffert, KC6WZU
Ivan Looch, N7PRM
Wes Allen, K7WWG
Jeff Appgar, W7JEZ
Steve Brice, NA7T
Chris Nelson, N7ELU
Dave Stangland, KD7RTE
Bill Morris, W7IH
Andrew Jackman, KD7NYQ
Ian Cameron Crowe, KC7YRL
Bill Johnson, N7RGB

**LUNCH MEETINGS &
BANQUET PROGRAM**
Al Berg, W7SIC

"BORED SPOUSES"
Julie Landers, KD7GQW
Teresa Mathia
Pat Ackenhead, WA2ZZZ
Mary Berg, N7TRW
Jeff Mathia, KF6CXD
Sarah Nycz
Linda Sutton, KC7YTD
Amanda Nycz

FLEA MARKET
Lynn Hurd, WB7UNU
Tom Hill, WA3RMX
Jack Smithson, KA7HOJ
Stan Griffiths, W7NI
John Bookout, K7JB

AWARDS COMMITTEE
Darwin Durr, K7PSD
Tom Bailey, K7NAM
Al Berg, W7SIC
Everett Curry, W6ABM
Jeff Durr, KA7AKU
Mike Durr, KA7PWZ
JD Fort, K7JDF
Chuck Samuel, K7NWM
Jim Schaeffer, KB7ADH
Mel Sutton, KB7PVW

REGISTRATION
Will Sheffield, N7THL
Mary Berg, N7TRW
Julie Landers, KD7GQW
Jeff Mathia, KF6CXD

V.E. TESTING
Carl Clawson, WS7L
Gordon Girtow, W6NW
Bob Orr, WF7Q
Claire Johnson, N7CM
Ernie Johnson, K7EAJ
Kevin Rock, KD5ONS
Ron Schultz, N7HKK

SEMINARS

Hoodview A.R.C.
Ed Clulow, W7TL
Armand Pilotte, W7IG
Millie Pilottee, W7MIP
John Barmore, W7SIR
Patsy Barmore, W7PAT
Jim Schoch, KA7IUG
Cory Schoch, KA7IUG

SECURITY
Clark County A.R.C.
Luther Brisky, KC7KVL
Wayne Schuler, AI9Q
Jack Barratt, W7JB

TALK IN STATION
Sunset Empire A.R.C.
Marque Mariott, N7LWQ
Gordon Lange, N7GCA
Scott Hulls, KC7OOH
Diane Hankins, KC7OHH
Emily Wolf, KB7L

WEB SITE
Rox Heath, KD7OHE
Bob Heath, KD7OHF

**PROGRAM BOOK
REGISTRATION MAILER**
Everett Curry, W6ABM
Dale Lebaron, W7FBP
Kevin Curry, KA7KYQ
Bob Heath, KD7OHF

**Be sure to express
appreciation to these
volunteers.**

**They make
SEA-PAC
possible each year**

Committee Chair is underlined

ARRL Friday Seminar

The ARRL is offering a free Amateur Radio Emergency Communications (ARECC) seminar Friday, June 18, at SEA-PAC. The seminar does not include the Level I course itself.

This program is designed to explain in greater detail the duties of all Amateur Radio Emergency Communications Course participants and how their volunteer efforts are essential to the ARES Field Organization. Senior Citizens are strongly encouraged to participate. "With the continuing support of our federal homeland security grant from the Corporation for National and Community Service, and the national grant from our corporate partner, United Technologies Corporation, ARECC participants are reinforcing the ARES Field Organization. This seminar explains the importance of every team player with emphasis on using lessons learned to effectively move Amateur Radio emergency communications to the next level," said ARRL Emergency Communications Course Manager Dan Miller, K3UFG.

All ARES/RACES volunteers, ARECC course participants, and Field Organization leadership are welcome. Course participants at every ARECC level -- Mentors, Certification Instructors, Certification Examiners and current students are encouraged to come and share experiences with the ARECC program. Field Organization Leadership -- SMs, SECs, DECs and ECs -- are welcome to join in the brainstorming with ideas for motivating volunteers and coordinating activities. The focus is on coordination between ARECC volunteers and students, and their integration into the Field Organization, helping to provide the community impact stressed by CNCS for year 2. Attendees receive handouts and are eligible for a prize drawing at the end of the seminar. The seminar is held in the Convention Center from 1:00 PM to 4:00 PM and is open to all interested hams. Seating limited.

(Seminar attendance does not include admission to SEA-PAC)

Due to publication deadlines we apologize for any changes.

Welcome to SEA-PAC 2004

SEA-PAC, the ARRL Northwestern Division Convention, is sponsored by the Oregon Tualatin Valley Amateur Radio Club. Co-Sponsors include Clark County Amateur Radio Club; Sunset Empire Amateur Radio Club; and, Hoodview Amateur Radio Club.

The Sponsors wish to thank volunteers for their assistance and contributions to the convention. We hope everyone will enjoy themselves to the fullest and be a part of making this event a success.

Contents

Exhibitors	4	RAGS Test Bench.....	16
Convention Banquet.....	5	Meetings at SEA-PAC	16
Chuck Mickley Scholarship ...	6	ARRL Friday Seminar	17
"Bored Spouses"	7	Committee Members	18
Grand Awards	8	SEA-PAC 2005 Info Form Back	
Seminar Schedule.....	9-10		
Seminar Descriptions	11-15		

"A Hangout for Bored Spouses"

Hospitality Suite

Our Saviour's Lutheran Church - West Parish Hall
Stop by and have a cup of coffee, tea, or other beverage and relax.
Ham License and registration at the Convention not required.

Listen for the latest Convention Information and Updates on 88.1 MHz

VE Testing

Testing at Our Saviour's Lutheran Church - East Parish Hall
[north - across from the Convention Center]
One Session - Saturday at 9:00 AM

Pre-registration requested. Walk-ins — Space Available

Talk-in Station: 146.660 (-600) MHz

Convention Schedule

Friday, June 18

Registration..... 11:00 AM – 8:00 PM
 Exhibitor & Flea Market (Setup Only)..... 11:00 AM – 8:00 PM
 Workshop: *Slopers & Sloper Arrays* (Riverview ABC) ... 12:30 PM – 5:00 PM
 ARRL Workshop: *EMCOMM* (Seaside A&B)..... 1:00 PM – 5:00 PM
 “Bored Spouses” Hospitality (Our Saviour’s West Parish Hall).... 6:00 PM – 8:00 PM

Saturday, June 19

Registration..... 8:00 AM – 4:30 PM
 Exhibits & Flea Market 9:00 AM – 4:30 PM
 Snack Bar..... 9:00 AM – 4:30 PM
 “Bored Spouses” Hospitality (Our Saviour’s West Parish Hall)... 9:00 AM – 5:00 PM
 VE Exams (Our Saviour’s East Parish Hall) 9:00 AM – NOON
 Seminars (Seaside & Riverview Rooms)..... 9:30 AM – 5:00 PM
 Hourly Awards..... 10:00 AM - 3:00 PM
 YLRL Luncheon & Program (Oceanview Fireplace Room) 11:30 AM – 1:30 PM
 QCWA Luncheon (Oceanview Tillamook Room) 11:30 AM – 1:30 PM
 ARRL Forum (Seaside A&B)..... 12:30 - 2:15 PM
 Special SEA-PAC Award 2:30 PM
 Pre-Banquet Happy Hour (Convention Center Lobby) 6:30 PM – 7:15 PM
 SEA-PAC Banquet (Convention Center)..... 7:15 PM – 9:30 PM

Sunday, June 20

Registration..... 8:30 AM – 12:00 PM
 Exhibits & Flea Market 9:00 AM – 1:00 PM
 Snack Bar..... 9:30 AM – 12:30 PM
 Seminars (Seaside & Riverview Rooms)..... 9:15 AM – 11:30 PM
 Hourly Awards..... 10:00 AM - 11:00 AM
 Special SEA-PAC Award 10:30 AM
 Grand Awards 1:00 PM – 2:00 PM
 SEA-PAC Closes 2:00 PM

RAGS Test Bench

As a service to flea market buyers, the Radio Amateurs of the Gorge (RAGS) provides a test bench on the west side of the exhibit area. Test equipment includes a power supply, speaker, voltmeter, frequency counter, oscilloscope and watt meters. Buyers and prospective buyers are encouraged to make use of this service to check out flea market treasures and those unbelievable bargains.

Neither RAGS nor SEA-PAC accepts responsibility for the condition or operability of any equipment, nor can they be held responsible for equipment damage as a result of use of test gear.

Meetings at SEA-PAC

Saturday

11:30 AM	QCWA Luncheon	Oceanview Resort/Tillamook Room
11:30 AM	YLRL Luncheon	Oceanview Resort/Fireplace Room
1:00 PM	ARES Meeting	Sea-Mist Room
3:00 PM	Oregon Section Cabinet Meeting	Sea-Mist Room

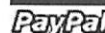
Sunday

11:00 AM	ARRL NW Division Cabinet Meeting	Sea-Mist Room
----------	----------------------------------	---------------

[Meetings are scheduled by, and the responsibility of, the organizations listed. SEA-PAC provides space for these sessions.]



INRETECH



LED (Light Emitting Diode) flashlight adapters

Adapter sizes
AA, 3D, 6D

AA Adapter runtime comparison



- Longer operating time
- Better white color
- More even pattern
- More durable

Normal Incandescent

LED

White, Red, Green, Blue, Deep-Blue, Cyan, Amber, IR, Near-UV
 Some wavelengths not available in all sizes

sales@inretech.com

www.inretech.com

PLEASE SILENCE RADIOS AND PHONES DURING THE SEMINARS.

- (21) **2 Element Break Through**
Ken Glanzer K7GCO
Part 1 Sunday 9:15 – 10:15 AM Seaside A & B
Part 2 Sunday 10:45AM – 12:00 PM Seaside A & B
Ken is back and has some new information concerning 2 element directional antennas. How would you like a 50 ohm antenna with a 50 dB front to back ratio? Grab a cup of coffee and join Ken for an interesting way to spend Sunday morning at Sea-Pac.
- (22) **Internet Radio Linking Project**
Michael Bloom W7RAT
Saturday 9:30 AM Riverview C
The aim of the Internet Radio Linking Project (IRLP) is to provide a simple and easy system to link radio systems together using the Internet as the communications backbone. This will be a practical demonstration of its' capabilities.

PLEASE SILENCE RADIOS AND PHONES DURING SEMINARS



Leon Hummel, W7AD, Manager

**11705 SW Pacific Hwy [99W] Suite Z
PORTLAND OREGON**

800-854-6046 503-598-0555

24 HOUR FAX 503-684-0469

portland@hamradio.com

Visit us at SEA-PAC

PORTLAND, OR ANAHEIM, CA BURBANK, CA OAKLAND, CA
SAN DIEGO, CA SUNNYVALE, CA NEW CASTLE, DE DENVER, CO
PHOENIX, AZ ATLANTA, GA WOODBRIDGE, VA SALEM, NH

SEA-PAC Exhibitors

AJ's Custom Embroidery

American Red Cross

Arcom Communications

ARRG, Inc.

Aventrade

B&B Safe-T-Tek

Badge Boys

Battery Tech Inc.

Books Etc.

Cascade Pacific Radio Scouting

Communication Outfitters, USA

Dave's Radios LLC

DC Power

Discovery Bay Computing

E.E. Industries

Elecraft Kits

Emergency Supply Center

EMCOMM

Fue Enterprises

Hamstop.com

Hi-Q Antennas

HiValue Radio

Hotpress Ham Hats

HRO - Ham Radio Outlet

ICOM

Inretech

J & K Enterprises

J.Poles.Com

Kenwood

Larry's Antennas LLC

Lightblasters.com

Navy Mars

Pacific Research

Portland ARC

StarFire Tec

Tigertronics

Ventenna Co.

W3FF Antennas

Western Case Sales

Willamette Valley DX Club

YLRL-Young Ladies

Radio League

Due to publication deadlines we apologize for any changes or omissions.

Banquet Speaker



Bill Pasternak WA6ITF

Bill Pasternak WA6ITF, is a broadcast engineer with Fox Television, Los Angeles. He is co-founder and managing editor of Amateur Radio Newsline™ bulletin service and created the ARNewsline™ Young Ham of the Year Award program that honors the a radio amateur 18 or younger with a trip to Spacecamp in Huntsville, Alabama.

Bill is recipient of the prestigious Dayton Amateur Radio Association's "Specific Achievement" and "Radio Amateur of the Year" awards. He received the ARRL National Certificate of Merit in recognition of his contributions to the furtherance of the Amateur Radio Service. Welcome, Bill to SEA-PAC '04.

Bill Pasternak WA6ITF

Master of Ceremonies

Greg Milnes, W7OZ

ARRL Northwestern Division Director

EMBROIDERED HAM HATS

HOTPRESS

T-SHIRTS

HAM HATS MADE BY HAMS

20406 RHODDY DR. E SUMNER WA 98390

253-862-8322 TPLES 1-800-862-1221

www.hotpresstshirts.com

COMPUTERIZED EMBROIDERY

NOW ACCEPTING PayPal ON LINE

SERVING HAMS SINCE 1994

PLEASE SILENCE RADIOS AND PHONES DURING THE SEMINARS.

- (16) **Antenna Modeling**
Terry Dettmann WX7S
Saturday 1:00 PM Riverview B
The engrossing activity of building an antenna in a computer to see if it works is popular with many hams. Whether you are getting started or doing more complicated projects you should find this seminar valuable. Terry says he is playing with the new issue of EZNEC® and will have some things to relate.
- (17) **Merchant Marine Communications**
Dick Bass W7SMR
Saturday 3:00 PM Riverview B
The maritime mobile service conjures up images of a radio officer called "Sparks" pounding out messages from the radio shack. Today's merchant marine, however, uses modern sophisticated voice and data links to communicate and control the ships on the vast oceans. Join Dick in a discussion of this interesting field of communications.
- (18) **Ham Radio & the Law**
Phil Kane K2ASP
Saturday 3:00 PM Riverview A
Phil, a lawyer and an engineer, is an F.C.C. veteran of many years in the San Francisco office. He is ready to discuss the many legal aspects of our hobby such as part 97, CCR, and interference issues. Join him for a lively discussion of your rights and responsibilities as a licensed amateur radio operator.
- (19) **NVIS Antennas – Theory and Applications**
Tom Sanders W6QJI & Ed Bruette N7NVP
Saturday 11:00 AM Riverview B
A short review of Near Vertical Incident Skywave (NVIS) theory and then discuss the computer modeling and construction of a 75/60/40 meter tri-band antenna. Tom has been active in EmComm for fifteen years, serving a one year term as Interim DEC. Ed is the WWA Section Manager and Washington State RACES Officer. Both are strong supporters of NVIS antennas for EMCOMM.
- (20) **"Two-fers" – A DX trip to Palau and Yap**
Tom Meier K7ZZ
Saturday 11:00 AM Riverview A
The story of a "shoestring" DX operation in the western Pacific last fall by hitch hiking on military aircraft. "You show up, set up, and start working the pile up" resulting in 16,000 contacts in the log from a single, low-power station. Tom, a retired Boeing engineer, actively pursues DX – including the K3J operation from Johnston Atoll and the V73E activation of Eniwetok.

PLEASE SILENCE RADIOS AND PHONES DURING SEMINARS

PLEASE SILENCE RADIOS AND PHONES DURING THE SEMINARS.

- (10) **Incident Command System**
Perry Hopkins KD7EYM
Emergency Manager, Bureau of Water Works, City of Portland
Saturday 9:30 AM Riverview A
 Incident Command is a uniform system of resource management in times of civil emergencies. Those people involved with ARES/RACES communications should be familiar with the concepts and where they fit in the plan.
- (11) **Family Preparedness**
Patrice Goodman, American Red Cross
Saturday 11:00 AM Seaside C
 Fires, floods, and other natural or man-made disasters can strike without warning. Are you prepared to protect your home and family? Learn what steps to take now.
- (12) **Radio Scouting**
Phil Westover WA7URV
Saturday 9:30 AM Riverview B
 Come and learn about the new expanded radio program of the Boy Scouts of America. The Cascade Pacific Council, BSA has an educational and fun program with wireless communications.
- (13) **Emergency Hospital Communications**
Duane Mariotti WB9RER
Saturday 11:00 AM Riverview C
 This is a presentation on the expanding role of amateur radio in hospital and healthcare communications. It includes background on hospital communications systems as well as future systems being implemented in the Pacific NW as part of the post 9/11 funding packages. Duane is a frequent lecturer on hospital emergency preparedness activities.
- (14) **RVing and Amateur Radio**
Karen Titus W3KAT & Temp Titus W4HZV
Saturday 1:00 PM Riverview C
 Whether you are a full time or a weekend RVer you will enjoy meeting them and hearing how they, with their dog FLIP, combine Amateur Radio and full time RVing. Learn about the WinLink Radio E-Mail Team.
- (15) **How to Build a 72 Hour Kit**
Dan Boothby SAFE-T-TEK
Saturday 1:00 PM Riverview A
 If you might be called to help in an emergency or you just want to have a "grab and go" kit for survival. Learn what needs to be included in a package to help you survive the first 72 hours.

PLEASE SILENCE RADIOS AND PHONES DURING SEMINARS

2004 Chuck Mickley Memorial Scholarship



Jacob Brunson KD7UPN

Jacob Brunson, KD7UPN, is a native of Hillsboro, Oregon was selected to receive the 2004 Chuck Mickley Memorial Scholarship. He was in a tough competition with his sister, Sarah, who is a previous recipient.

Jacob was licensed at age 12 as a novice with the call sign, KB7PNN, and shortly thereafter he upgraded to the technician plus class license. He enjoyed working CW and 10 meter SSB with his fathers Icom IC-735 rig, often times operating mobile from the family car.

Jacob graduated with honors from Glencoe High School in 1999. While at Glencoe, he worked as the school's first student webmaster. He was captain of the school's science bowl team that placed 4th in the northwest, and participated with the Key Club service club. He enrolled in the Engineering Prep course at the Capital Center Regional High School, giving him a head start at learning engineering while still in high school. Jacob has traveled and lived in Romania for two-years where he served a mission for The Church of Jesus Christ of Latter-day Saints and became fluent in the language.

Jacob attends Brigham Young University. He is a junior majoring in computer engineering. During his freshman year he joined the university's amateur radio club where is still active. Jacob served as webmaster and vice-president and will be president for the 2004-05 school year.

As a member of the amateur radio club, Jacob helped coordinate communications for campus parades, races, and security events. He organized the club's first involvement with the Brigham Young University club roundup contest.

Jacob is an eagle scout, and earned the radio merit badge.

ARRL Representatives



David Sumner, K1ZZ Executive Vice President

Greg Milnes, W7OZ, Director, Northwestern Division

James E. Fenstermaker, K9JF, Vice Director, Northwestern Division

Dan Miller, K3UFG, Emergency Communications Course, ARRL

SEA-PAC HOSPITALITY ROOM

Our Saviour's Lutheran Church - West Parish Hall

"A HANGOUT FOR BORED SPOUSES"

FRIDAY, June 18th

Open 6:00 pm to 8:00 pm

Stop in, have a cup of coffee, tea or other beverage.

Bring in books and recipes for the exchange and take some with you when you leave.

SATURDAY, June 19th

Open 9:00 am to 5:00 pm



Crafts
Refreshments
Book Exchange
Recipe Swap

10:00 am

Learn A New Craft
Pat Ackenhead WA2ZZZ

Come in and try your hand at a new craft project.

QCWA LUNCHEON

All QCWA Members Invited



Saturday, June 19th at 11:30 AM

Oceanview Resort - Tillamook Room

**Coffee, tea,
and other beverages.**

**Popcorn, donuts and bagels
(while they last)**

Pick up copies of the recipes shared, take a book from the book exchange, complete a craft. You don't need to bring a book or recipe to take one home.

SUNDAY, June 20th
No Sunday Hospitality Room

**Volunteers who helped
this year**

Julie Landers, KD7GQW
Teresa Mathia
Pat Ackenhead, WA2ZZZ
Mary Berg, N7TRW
Jeff Mathia, KF6CXD
Linda Sutton, KC7YTD
Sarah Nycz
Amanda Nycz

YLRL LUNCHEON

All Ladies Invited

"YLRL exists to encourage and assist YLs throughout the world to enter into the Amateur Radio Service."

Saturday, June 19th at 11:30 AM

Oceanview Resort - Fireplace Room

PLEASE SILENCE RADIOS AND PHONES DURING THE SEMINARS.

- (5) **146.78 Upgrades, REV 1.0: Direction Finding, Weather, and more!**
David Hackleman W7QH
Saturday 1:00 PM Seaside C
Five engineering students at OSU were commissioned to develop and implement upgrades for the 146.78 repeater (Mary's Peak). In the process, three new ham radio operators were produced from the group! Included in this project was the complete replacement of the repeater system, the investigation and addition of a direction finding feature, the addition of a weather station, and some information on site monitoring work.
- (6) **NVIS-Near Vertical Incident Sky Wave**
Bert Younglove WA7HI
Saturday 3:00 PM Riverview C
VHF for emergency communications is OK for the flat lands or where repeaters are available. What do you do when you're in a deep valley and your signal needs to "leap tall mountains with a single bound?" Used by the military for a long time, NVIS may be the answer to your ARES communication needs. Learn how to determine what frequencies and antennas will do the job for you.
- (7) **Elements of Writelog**
Al Rovner K7AR
Saturday 9:30 AM Seaside C
Writelog is one of the most popular contest logging software programs ever for the diehard contester. Al has experience with setting up for rig control and RTTY interfacing. Learn how the Multi-Multis do it and maybe come away with some ideas for your own station.
- (8) **Optimizing Your Signal on PSK31**
Clint Hurd KK7UQ
Saturday 3:00 PM Seaside A&B
Clint returns with new information on how to get the most from the new digital modes. Included will be discussions on basic sound card operation and building your own sound card interface.
- (9) **Sound Card Lab**
Hoodview Amateur Radio Club
Part 1 Sunday 9:15 — 10:15 AM Riverview B & C
Part 2 Sunday 11:00 AM — 12:00 PM Riverview B & C
Computers equipped with sound cards have revolutionized the digital communication world. With the proper software two way communications for text, data and pictures are now possible that used to require special expensive peripherals. A discussion of software available and a "hands on demo" to get you started. If you bring your notebook/laptop, we'll help load the software and customize it.

PLEASE SILENCE RADIOS AND PHONES DURING SEMINARS

Seminar Topic Information

We hope that you find seminars to attend that catch your interest and open the doors to new ham radio adventures. The presenters below volunteer their time to share with you their knowledge and skills on the many facets of this great hobby. Whatever your interests are, you're sure to acquire a great deal of new knowledge to take home.

Listed below is an overview of the each seminar being presented this year. This will help you select the seminars of interest. When attending seminars be sure to thank the presenter when it is over.

PLEASE SILENCE RADIOS AND PHONES DURING THE SEMINARS.

(1) FRIDAY WORKSHOP: "Slopers and Sloper Arrays for the Low Bands"

Rudy Severns N6LF, Engineering Consultant (retired)

Friday 12:30 to 5:00 PM Riverview A,B,& C

The workshop will begin with a careful look at half and quarter-wave slopers and then go on to arrays of these antennas. There will be some theory, modeling and many practical examples.

Limited to 100 participants

Fee (If seats available): \$15.00

(2) The ARRL Forum

David Sumner, K1ZZ, ARRL Executive Vice President

Greg Milnes W7OZ, ARRL Northwestern Division Director

Jim Fenstermaker K9JF, ARRL Northwestern Division Vice Director

Saturday 12:30 to 2:15 PM Seaside A & B

An opportunity to meet Dave, Greg, and Jim and find out what the league's goals are, and to express your views and opinions on policy.

(3) Learning Morse Code

Sam Sparks, KD7K

Saturday 3:00 PM Seaside C

Sam has a rather unique and powerful way to help Hams to learn the code. He is a consultant specializing in matching people to jobs and vise versa. He shows people how they can best learn to gain mastery over subjects at work or for pleasure.

(4) ICOM D-STAR

Matt Yellen KB7TSE

D-STAR ICOM AMERICA, Technical Sales Specialist,

Saturday 11:00 AM Seaside A & B

Learn about the new technology from ICOM for the 21st Century.

PLEASE SILENCE RADIOS AND PHONES DURING SEMINARS

SEAPAC Grand Awards

You do not need to be present to win these awards

ICOM IC-706 MKIIG HF/VHF/UHF

Alinco DR-620T 2/440 Mobile

Kenwood TM-G707A 2/440 Mobile

ICOM IC-V8000 2 meter 75W Mobile

Yaesu FT 2800 2 Meter 65W Mobile

**YOU MUST BE PRESENT IN THE CONVENTION
CENTER TO WIN THESE AWARDS**

-- NONE BY PROXY --

Honda EU 1000i Generator

Alinco DR-605TQ 2/440 Mobile

Kenwood TM-271A 2 Meter 60W Mobile

ICOM IC-V8 2 Meter 5.5W Hand Held

SPECIAL DAILY AWARDS

Saturday 2:30 PM

Sunday 10:30 AM

Must be present to claim award

Awards ceremony is limited to one hour between 1:00 PM - 2:00 PM on Sunday. Awards are purchased at or below cost from manufacturers and dealers.

We take this opportunity to express our appreciation for their assistance.

HOURLY AWARDS

Posted in the lobby and
on stage for 2 hours

Unclaimed Awards are re-issued!

Early Bird Awards

Registrations postmarked prior to
May 15, 2004 eligible

**ICOM IC-706 MKIIG
Yaesu VX-5RS Hand Held**

Award models subject to change
depending on availability from the
manufacturers and dealers.

FRIDAY

12:30 PM	(1) FRIDAY WORKSHOP "Slopers and Sloper Arrays for the Low Bands" Rudy Severns N6LF	Riverview A, B & C
1:00 PM	EMERGENCY COMMUNICATION COURSE SEMINAR Dan Miller K3UFG ARRL Certification Specialist	Seaside A&B

Saturday

9:30 AM	(7) Elements of Writelog Al Rovner K7AR	Seaside C
	(10) "Incident Command System" Perry Hopkins KD7EYM	Riverview A
	(12) "Radio Scouting" Phil Westover WA7URV	Riverview B
	(22) Internet Radio Linking Project Michael Bloom W7RAT	Riverview C
11:00 AM	(4) ICOM D-STAR Matt Yellin KB7TSE	Seaside A&B
	(11) Family Preparedness Patrice Goodman American Red Cross	Seaside C
	(20) "Two-fers – A DX Trip" Tom Meier K7ZZ	Riverview A
	(19) NVIS Antennas – Theory & Applications Tom Sanders W6QJI & Ed Bruette N7NVP	Riverview B

11:00 AM	(13) Emergency Hospital Communications Duanne Mariotti WB9RER	Riverview C
12:30 PM	(2) ARRL FORUM David Sumner K1ZZ Greg Milnes W7OZ Jim Fenstermaker K9JF	Seaside A&B
1:00 PM	(5) "146.78 Upgrades Rev. 1.0" David Hackleman W7QH	Seaside C
	(15) "How to Build a 72 Hour Kit" Dan Boothby SAFE-T-TEK	Riverview A
	(16) Antenna Modelling Terry Dettmann WX7S	Riverview B
	(14) "RVing and Amateur Radio" Karen W3KAT & Temp W4HZV Titus	Riverview C
3:00 PM	(8) "Optimizing Your Signal On PSK31 Clint Hurd KK7UQ	Seaside A & B
	(3) "Learning Morse Code" Sam L. Sparks PhD KD7K	Seaside C
	(18) "Ham Radio and the Law" Phil Kane K2ASP	Riverview A
	(17) Merchant Marine Communications Dick Bass W7SMR	Riverview B
	(6) "Near Vertical Incident Skywave" Bert Younglove WA7HI	Riverview C

Sunday

9:15 AM	(21) "2 Element Break Through" Ken Glazner K7GCO	Seaside A & B
	(9) "Sound Card Lab" Hoodview Amateur Radio Club	Riverview B & C

Seminar Information on following pages